SBR No. 13 22-23
DATED 26-7-22

Original/Duplicate/Triplicate

CONTRACT CERTIFICATE

(For Other Works)

EE/ELE/Y/BR.No. 13/22-23

Date.....2022 Dt. 26/7/22

No. 1st & Final bill

Division: **Electrical (yelahanka)** Sub-Division: **Electricals**

Bill Received No. Dated Divisional Cash Book Voucher No..... Dated.....

Sub Divisional **Job Code :-007-22-000015**

Schedule Docket No. Head of Account : P-CODE:P1828 D.R.No. :

Name of Work:- Providing LED Street lights/Control switches/control wires at Dark/vulnerabale places in Ward no 06,07&08.

Name of Contractor and Full Address: **M/s Shah Electricals.**

Reference to Agreement No:- EE(ele)/YZ/W.O/000018/2022-23 Date 27/04/2022

Certified that the measurements were taken by me on 16/6/22 and recorded of Pages 256979 to 6984 of measurement Book No. 257019-20 and that the work is satisfactorily executed.

For SHAH ELECTRICALS

Proprietor

Contractor

Officer-in-charge of work

Certified that the measurement were taken by me on 16/6/22.....and found correct. The work is satisfactorily executed.

Certified that the quantities of materials shown in column 3 of Account have been actually brought to site of the work and the contractor has not previously received any advance on this security. These materials are of and imperishable nature and are all required for immediate use on the work in connection with items for finished work have been agreed upon. A normal agreement signed and executed by the contractor is recorded in the office.

Assistant Executive Engineer (Ele)

Sub-Division Officer

BBMP, Bangalore

II Memorandum of Payment

1)	Total value of work done or supplies made as per account within	Bill= 1,31,04,304=00
2)	Deduct amount to be held in reserve being .....percent Rs.....	IT 1% 13,104=00
3)	" Balance	Lwc 1% 13,104=00
4)	Deduct Payment:	Sec(E) 1% 1,17,511=00
	a) Amount of previous payment as in the Office Cash Book Voucher No.....Dated.....S.D. No..... Amount adjusted towards cash advance recovery of	Cess 1% 1,17,511=00
	b) Payments Now made cost store or other material supplied. recovery of amount creditable to this/other work Amount paid on this bill Cheque / Cash.	CBFO 1% 13,104=00
		deductions= 5,10,212=00
5)	Balance being unpaid value of work done held in reserve.	Cheque= 1,25,94,092=00
6)	Deduct cash advance made on the Office cash Book Voucher No..... dated.....less adjustments.	
7)	Net amount due to or from Contractor unadjustments items.	
8)	Advance to Contractor for materials brought to site (as detailed) within.	
9)	Value of Government materials supplied.	
	Total amount adjusted -	

Contractor's Signature

For SHAH ELECTRICALS

Proprietor

Received Rs..... (in words).....

.....

by cash and by adjustment of Payment as per memorandum

(in final settlement of all demands) (For use in the Office)

Witness

1.

2.

Dated Signature of Contractor

Paid by me by Cheque No.....Dated.....

Cash Rs.....

Dated.....

Initials of Officer making payment

For SHAH ELECTRICALS

Proprietor

Stamp

ಸಾಂಕೇತಿಕ P1828 ಪಾಯಿಂಟ್ Load of Street Lights

ರೂ:1,31,04,304=00 ಪಾವತಿ ಸಿದ್ಧಪಡಿಸಿದೆ

ರೂ:1,25,94,092=00 ಚೆಕ್ ನೀಡಲಾಗಿದೆ

ರೂ:5,10,212=00 ಹೊಂದಾಣಿಕೆ ಮಾಡಿದೆ

ಲೆಕ್ಕ ಅಧೀಕ್ಷಕರು

Executive Engineer

ಕಾ.ಪಾ.ಅ.(ಪ) ಯಲಹಂಕ ವಲಯ

Sl. No	Description
	Name Of Work:-Providing LED Street lights/Control switches/control wires at Dark/vulnerabale places in Ward no 06,07&08.
1	Supply of LED Streetlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti glare clear diffuser with Injection moulded polycarbonate material, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%, maximum light intensity should be between 60 degrees to 70 degrees. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains, Surge Protection- Min 5KV along with Over voltage/ Overload, short circuit/ miss-wiring protection. Compatible for pole mouting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with W System Power consumption. LED Efficiency>130lm/w, nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 . Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 2 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer & Cree/Nichia/ Lumileds/Osram make LED Source.LED Streetlight 90 Watts
2	Supplying and Fixing of. mm dia class A GI pipe bracket up to 2 Mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 watts fluorescent tube street light fitting of all capacities to GI or CI or rail or RCC pole / wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires.Using 32mm dia G.I.Pipe
3	Fixing halogen/metal halide / SVL / IL / LED floodlight fitting over existing pole / wall ceiling including clamps, bolts, nuts and wiring using suitable capacity wires.
4	Wiring for lighting/power circuit using one of PVC insulated 1100V grade, stranded Aluminium wire single core in open or concealed system of wiring.4 sqmm
5	Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts, necessary phase separators, handle and wiring complete. Protection of Overload and Short circuit with thermal Magnetic/Micro processor release and Earth Fault as per IS-13947. (Icu = Ics) 100Amps 25kA.
6	Supply and Installation / Fixing / Provision of Pole box with HRC Fuse / MCB provision and suitable connector / terminal for 3 Ph / 1 Ph connections with Loop-In & Loop- Out terminals for 10 Sqmm / 25 Sqmm 3.5 C Al/Ar / Cu/ Ar Cable and branch out 2.5 Sqmm 2 core Al/Cu PVC Insulated cable, enclosed in a Thermoplastic, Polystyrene enclosure, which should be shock proof, safe, IP65(Weather Proof), rust proof, dust proof, water proof having Internally Embedded Gasket with provision for cable entry through IP65 Thermoplastic, polyamide glands and/or grommets.260mmx210mmx116mm
7	Supplying of 1.1 KV LT UG cable XLPE or Heat resistant PVC insulated, PVC extruded Inner sheath armoured UG LT cable as per IS-1554 (Part-1) or IS-7098 Part-1, Armouring strip thickness in average +5% and resistivity 14 Ohms/Kms (Max) as per IS-3975 4 core 16 sqmm
8	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.On wall /Structure 6 sqmm to 16 sqmm
9	Supply and Installation / Fixing / Provision of Outdoor type Thermoplastic Modular Panel enclosure with transparent Polycarbonate Lid, shock proof, IP65 (Weather Proof), rust proof, dust proof, water proof, corrosion proof having internally Embedded gasket on both lid and flap suitable to fix Single Phase / Three Phase Energy Meter in suitable base plate and having a provision for Fuse / MCB cutout with suitable transparent hinged flap opening for operating MCB along with complete tamper proof SEALING facility.300mmx450mmx214mm
10	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898.50-63 Amps SP
11	Supply and fixing of 4pole power contactor with NO/NC contacts on existing wood/panel board using necessary bolts, nuts, washers and wiring etc., complete with AC-3 Rating and as per IS-13947.100 to 125Amps

erabale places	evious Measurement		Present Measurement			Total Upto Date		Remarks
	Qty	Cost	Qty	Rate	Amount	Qty	Cost	
thermal polycarbonate ance of 70%, al and electrical s. Surge mpatible for ge from 100V with RoHS. UL sight site ave in-house oment facility sing on the standard leds/Osram			1189	7513.50	8933551.50	1189	8933551.50	
escent tube s, bolts, and			1189	877.10	1042871.90	1189	1042871.90	
including			1223	185.00	226255.00	1223	226255.00	
um wire			3400	9.50	32300.00	3400	32300.00	
card using rotection of t as per IS- E			36	4754.00	171144.00	36	171144.00	
sion and als for 10 Cu PVC ock proof, Gasket with E			36	2155.00	77580.00	36	77580.00	
er sheath in average M			495	156.00	77220.00	495	77220.00	
re pipe / M			495	31.00	15345.00	495	15345.00	
nclosure t proof, o fix Fuse / ete Ea			30	5381.00	161430.00	30	161430.00	
cessary ng Ea			30	759.00	22770.00	30	22770.00	
board per IS- Ea			30	7554.00	226620.00	30	226620.00	

12	Supplying, fixing and wiring rotary selector switch suitable for Voltmeter.(Togal switch)
13	Supplying and running of GI/Copper strips for grounding connections, using necessary fixing materials as required.25x3mm GI strip
14	Wiring for lighting/power circuit using one of **FRLS** PVC insulated 1100V grade, multistrand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS-694:confirming to latest amendments.6 sqmm
15	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes.6 sqmm
16	Supply of RCC Pole - 9 Mtr Long, 145 Kg WL (Dwg No.BESCOM/GM/QS&S/02 Dtd 24.11.2018) as per IS-785
17	Digging of Pits 1.8 mtr depth for errection of 9 to 10 mtr Long Steel/RCC/PSC supports as per approved Drawing. 1)Ordinary Soil
18	Supply of LT 2 Pin X Arms - MS (Dwg No. BESCOM/GM/QS&S/32 Dtd 24.11.2018)
19	Erection of steel supports 9.0 to 10.00 mtr long such as 22.68 kg (50 lbs) Rail, 27.22 kg (60 Lbs) Rail I Beam of sizes 200x100mm, 175x90 mm, 125x100 mm. Fabricates poles tubular poles in pits of 1.8 mtr Depth, Aligning, Refilling with soil and ramming as approved drawing
20	1.1 kV, LT Aerial Bunched Cable, confirming to IS-14255: 1995 XLPE insulation Parameter shall be as below 1. Hot Set Test: a) Elongation under Load: 50% (Max) b) Permanent Elongation After Cooloing: 3% (Max) 2. Thermal Aging in oven: a) Tensile Strength: 16 N/mm² (Min) b) Elongation: 375% (Min) 3. Water Absorption Test a) Water absorbed: 0.5 mg/cm² (Max) 4. Carbon Black Content shall be ranging from 2% to 3% 3x25 + 1x25 + 1x16 Sqmm Street light (Insulated Messenger cum Neutral)
21	Stringing of 1.1 kV grade Aerial Bunched 3 Core cable of XLPE insulation of size (3x95) (Phase Conductor) + (1x70) (Insulated Messenger Neutral) + (1x25) (Street Light Control)
22	Fabricating, supplying and erecting swaged tubular pole of height ...Mtr having three sections, and providing two coats of red oxide paint and finished with two coats of enamelled paint of approved quality and colour and M.S. base plate of suitable size welded at the bottom of the pole(as per IS) and 40mm dia GI / flexible PVC pipe of 1 mtr length fitted to the heavy gauge polycarbonate control box including 5way connector of size 167x125x82mm for 7.5M pole/200x160x98mm for remaining length of pole with front opening cover, with locking arrangements and suitable capacity MCB / DP switch, The pole shall be erected in cement concrete work (1:2:4) including excavation and refilling of planting depth of the pole to the ground level and the coping CC shall be up to 0.6M above ground level as per IS 2713 - 7.Erection of heavy duty pole on Footpath / median10Mt (5Mt Hb,165.1mm dia 4.85mm thick x3M Hm, 139.7mm dia 4.50mm thick x 2M Ht,114.3mm dia 3.65mm thick) as per IS 410 SP 47
23	Supplying and fixing telescopic M.S. bracket fabricated by using 0.5m length 4" dia telescopic M. S. pipe, with 2" dia 1.5m long M. S. bracket and are welded with suitable angle, using 6mm thick M. S. sheet, grip bolts & nuts, as required, suitable for 9 to 12 Mtrs. M. S. tubular pole, with necessary two coats of painting, with all other accessoriesSingle bracket 1.5 Mtr. Length
	Total Rs
	GST Charges (12% on SR Electrical items) Item No 01 to 15 & 22,23
	Total Rs

Certificate: 1. Certefied that the Above Work has been carreid out satisfactorily

Assistant Executive Engineer (Elec)
BBMP, Bangalore

			30	140.00	4200.00	30	4200.00	
			15.84	78.00	1235.52	16	1235.52	
			15	73.00	1095.00	15	1095.00	
			150	7.30	1095.00	150	1095.00	
			4	6565.00	26260.00	4	26260.00	
			4	436.00	1744.00	4	1744.00	
			4	91.00	364.00	4	364.00	
			4	350.00	1400.00	4	1400.00	
			2.5	154247.10	385617.75	3	385617.75	
			2.5	23576.7217	58941.80	3	58941.80	
			15	17544.30	263164.44		263164.44	
			15	1259.16	18887.40		18887.40	
	2051.84	10994712.92			**11751092.31**		**11751092.31**	
					1353211.77		1353211.77	
					13104304.09		**13104304.09**	